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DEVELOPMENTS IN THE POLISH ENGINEERING INDUSTRY

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The basic change in the structure of the Polish engineering industry is manifested in the 600 percent increase in total production in this industry over the prewar level. Per capita, the increase amounts to 800 percent. The increase in total production since 1949 has amounted to 150 percent. In addition, the Polish engineering industry annually masters the production of about 100 new types of machines and apparatus which mechanize work, increase productivity, make production processes automatic, etc.

The year 1953, for example, saw the start of serial production of vertical boring and turning machines, with a 3,200 millimeter diameter work table, and modern, high-power 80 turret lathes, with a full preselection of turntables and feeds. An assembly line for electric motors, several types of high-productivity machine tools, and heavy presses was completed. The first Polish turbine-generator aggregate of 2 megawatts was completed and put into serial production. Production of a new type of ship steam engine was started.

Production of electric transformers, switches, motors, and high-power generators has been expanded to create a base for the development of the power industry. Production has started on mechanized binders and beet diggers, full sets of tools used for the mechanization of inter-row cultivation, high-productivity threshers, etc.

The first Polish produced prototypes of a shovel with a capacity of .5 cubic meters, a crane capable of lifting 45 tons, light cranes, 25-meter conveyors, and several new varieties of machines for the mechanization of construction have been completed.

In the transportation field, production has started on a modern type locomotive, type Ty-51, with an automatic stoker, an electric locomotive, and self-dumping railroad cars.

The assortment of textile machines for the production of synthetic fibers and cotton has been increased.

Noteworthy also is the start of serial production of WP-3 type machines, for continuous spinning of artificial silk, and cotton carding machines. Large-scale production of interchangeable parts for textile machines is underway. A prototype of a machine for manufacture of glass fibers has also been completed.

In the precision instruments field, the production of plant microscopes, laboratory stereoscopes, and apparatus for mechanization of steam boilers has been outstanding. The development of flow (potokowej) and nest (gniazdowej) organization of production, especially in the motor, agricultural machine, electro-technical, and similar industries, also has been outstanding during the Six-Year Plan.

In the metallurgical field, several new products such as inoculated, spheroidized, and acid-resisting cast iron, have been put into production. Machine casting, chill casting, eccentric casting, and pressure die casting have been expanded. An example of the progress in machine casting is the mechanized foundry in Lodz for radiators and boilers.

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Several factories in the machine tool industry are in process of reconstruction or expansion, as for example: Kuznia Raciborska (Raciborz Forge Works); Poreba; the Gdansk and Szczecin shipyards; several electrical machine and apparatus factories, such as the factory in Bydgoszcz; the technical equipment factory in Raciborz; the Machine Factory imienia Karola Swierczewskiego in Elblag; the truck factory in Starachowice; the tractor factory at Ursus; and many others.

The following large new factories are under construction: the factory for large electrical machines in Wroclaw, the harvesting machine factory at Staroleka near Poznan, the conductor and armature factory at Kielce, several large steel and iron casting plants, the passenger car factory at Zeran, the Boleslaw Bierut Truck Factory (Fabryka Samochodow Ciezarowych imienia Boleslawa Bieruta) in Lublin, and other machine industry factories.

Between 1950 and 1953, a suitably equipped defense industry was also created.

The task of the engineering industry is the reconstruction of the entire national economy on a new, higher, technical level. This does not in any way minimize the tasks connected with the development of power in the heavy and metallurgical industries. The production of power turbines; high pressure power boilers; increased assortments of heavy, specialized, and universal machine tools for the metallurgical industry; die hammers, and hydraulic presses is most important for the creation of a base for the entire national economy.

The engineering industry has not yet realized its potentialities in increasing the variety of articles of general use such as radios, bicycles, motorcycles, washing machines, refrigerators, cameras, and household articles.

Technical progress and improvement of quality must be promoted in the engineering industry. This demands the development of factory laboratories, standards, boards (izba pomiarowa), improved instruments, and technological bureaus. It demands the use of modern methods of production. On the basis of modern technology, the better utilization of machines and equipment, the greater use of socialistic competition, and a general improvement in work organization, work productivity in 1955 should be 16 percent greater than in 1953.

Besides preparing for production of power turbines and high-pressure boilers, and starting production of heavy boring machines, grinders for rolls, milling machines for working foundry ingots, precision machine tools, die presses and hammers, and laboratory measurement apparatus, special attention must be given in 1954 to the production of agricultural, textile, and food processing machines, and to articles of general consumption. The primary task here is to start production of a new type of tractor for agriculture and a self-propelled grain combine, to organize serial production of large threshers, to start nest (gniazdowa) production of tractor binders, and to expand production of such machines as potato and beet diggers, manure spreaders, flax harvesters.

The tasks of light industry in increasing textile production call for immediate basic investments and the reconstruction of plants producing artificial and synthetic fibers, and cotton, silk, and wool cloth.

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